

**TECHNICAL REVIEW DOCUMENT**  
**for**  
**RENEWAL of OPERATING PERMIT 97OPWE181**

Waste Management Disposal Services of Colorado, Inc.  
North Weld Sanitary Landfill  
Weld County  
Source ID 1230209

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November, 2005

**I. Purpose:**

This document will establish the basis for decisions made regarding the applicable requirements, emission factors, monitoring plan and compliance status of emission units covered by the renewed operating permit proposed for this site. The original Operating Permit was issued March 1, 2000, and expired on March 1, 2005. This document is designed for reference during the review of the proposed permit by the EPA, the public, and other interested parties. The conclusions made in this report are based on information provided in the renewal application submitted February 27, 2004. Please note that copies of the Technical Review Document for the original permit and any Technical Review Documents associated with subsequent modifications of the original Operating Permit may be found in the Division files as well as on the Division website at <http://www.cdphe.state.co.us/ap/Titlev.html>.

Any revisions made to the underlying construction permits associated with this facility made in conjunction with the processing of this operating permit application have been reviewed in accordance with the requirements of Regulation No. 3, Part B, Construction Permits, and have been found to meet all applicable substantive and procedural requirements. This operating permit incorporates and shall be considered to be a combined construction/operating permit for any such revision, and the permittee shall be allowed to operate under the revised conditions upon issuance of this operating permit without applying for a revision to this permit or for an additional or revised Construction Permit.

**II. Description of Source**

The North Weld Sanitary Landfill is classified as a municipal solid waste landfill, which falls under the Standard Industrial Classification 4953. This facility is located at 40000 Weld County Road 25, Ault, Weld County, Colorado. This facility is located in an area designated attainment for all pollutants. This facility is also part of the 8-hr Ozone Control Area as defined in Regulation No. 7, Section II.A.16. Wyoming is an affected state within 50 miles of the plant. The

following Federal Class I designated areas are within 100 kilometers of the plant: Rocky Mountain National Park and Rawah Wilderness Area.

This source is a municipal solid waste disposal facility with a design capacity of 8,145,612 Megagrams of non-hazardous solid waste (as defined in 6 CCR 1007-2) and an estimated life of 35 years. The landfill began accepting waste on February 3, 1992. Decomposing waste encapsulated within the landfill produces a gas that is primarily composed of methane and carbon dioxide. Emissions of non-methane organic compounds (NMOC), Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) also result from the decomposition of solid waste placed in the landfill. Fugitive particulate emissions are emitted from the following landfill activities: material transfer to and from storage piles, disturbed areas, wind erosion of storage piles, waste dumping, and vehicle traffic on unpaved roads.

Based on the information provided in the renewal application, the source has updated the insignificant activity list, responsible official, mailing address, and facility contact person. A change in the emission limits contained in the permit has also been requested.

The summary of emissions that was presented in the Technical Review Document (TRD) for the original permit issuance has been modified to reflect the most recent emission factors and emission estimates (based on historic waste acceptance rates).

**Facility-wide emissions are outlined below:**

Pollutant	Potential-to-Emit (tons/yr)	2004 Actual Emissions (tons/yr)
PM <sub>10</sub>	11.31	8.45
PM	43.54	32.19
CO	2.03	0.59
VOC	17.47	5.10
HAPs	4.53	1.32

The potential-to-emit VOC and HAP emissions are calculated from EPA's Landfill Gas Emissions Model (LandGEM). This emission rate is based on the landfill's maximum design capacity. The actual emissions found in the table above are the emissions reported on the most recently submitted APEN.

**Compliance Assurance Monitoring (CAM) Applicability**

The landfill does not utilize a control device, thus CAM does not apply.

### **MACT Applicability**

This landfill is not a major source, is not located at a major source, and does not emit NMOC in excess of 50 Mg/yr. The landfill MACT (40 CFR Part 63, Subpart AAAA) does not apply.

## **III. Discussion of Modifications Made**

### **Source Requested Modifications**

#### **Change the VOC, CO, PM & PM<sub>10</sub> emission limits**

Waste Management submitted revised emission calculations with the renewal application to update the emission limits to reflect maximum emissions at the landfill. These maximum emissions are expected to occur near closure of the landfill in 2028.

The VOC and CO maximum emissions are much lower than the emission limits from the original Operating Permit. This is mainly due to the large amount of inert material found in the landfill, which was apparently not considered while originally permitting this landfill. This landfill accepts a lot of construction waste, which is inert. Inert material does not contribute to landfill gas generation and is not included in the AP-42 2.4 calculations to determine VOC & NMOC emissions.

The Division estimated emissions and compared the results to Waste Management's request. The Division's estimates were slightly below the source's request. The Division will include Waste Management's emission estimates in the operating permit as emission limits.

The fugitive dust emissions were estimated using the appropriate sections of AP-42. The revised estimates were only slightly different than the original estimates. The new calculations were very detailed and are accepted by the Division and incorporated into the permit.

#### **Miscellaneous Requested Permit Language Changes**

- Mailing address updated.
- Responsible official updated.
- Facility contact person updated.
- Insignificant activity list updated.

## **Other Modifications**

In addition to the requested modifications, the Division has included changes to make the permit more consistent with recently issued permits, include comments made by EPA on other Operating Permits, as well as correct errors or omissions identified during inspections and/or discrepancies identified during review of this renewal.

These changes are as follows:

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- Monitoring and compliance periods and report and certification due dates are shown as examples. The appropriate monitoring and compliance periods and report and certification due dates will be filled in after permit issuance and will be based on the permit issuance date. Note that the source may request to keep the same monitoring and compliance periods and report and certification due dates as were provided in the original permit. However, it should be noted that with this option, depending on the permit issuance date, the first monitoring period and compliance period may be short (i.e. less than 6 months and less than 1 year). Waste Management has requested specific dates.
- Added language specifying that the semi-annual reports and compliance certifications are due in the Division's office by the due date and that postmarks cannot be used for purposes of determining the timely receipt of such reports/certifications.

### **Section I - General Activities and Summary**

- Revised Condition 1.1 to have a more accurate description of the emission sources. In Condition 1.1, a reference to the 8-hr Ozone Control Area was added.
- Conditions 13 and 17 in Condition 1.4 were renumbered to 14 and 18 and Condition 21 in Condition 1.5 was renumbered to 22. The renumbering changes were necessary due to the addition of the Common Provisions requirements in the General Conditions of the permit. In addition, General Condition 3.g (common provisions, affirmative defense) was added as a State-only requirement.
- Minor language changes were made to Condition 3.1 to more appropriately reflect the status of the source with respect to PSD.
- Based on comments made by EPA on another operating permit, the

phrase “Based on the information provided by the applicant” was added to the beginning of Condition 4.1 (112(r)).

- Added a “new” Section 5 for compliance assurance monitoring (CAM).

## Section II - Specific Permit Terms

### Section II.1: Landfill Gas Generation Generation

- The requirement to calculate VOC & HAP emissions from the landfill gas generation was changed from monthly to annually. The accepted method used to estimate these emissions does not generate valuable results with a monthly calculation. The method is designed only to accurately estimate emissions on an annual basis.
- Added language to require annual compliance with the VOC emissions via EPA’s LandGEM or AP-42 2.4. This is consistent with other recently issued Operating Permits for landfills.
- Modified the NSPS Cc, and Regulation No. 6, Part A, Subpart A, General Provisions language to be consistent with other recently issued Operating Permits for landfills (Conditions 1.3 & 1.4).
- Added language to Condition 1.1 to make it clear that annual emission estimates of VOC, NMOC, CO and HAPs are required.
- Removed Condition 1.6 which referenced the Regulation No. 2 odor requirement. This language is not typically included in operating permits since the odor requirement is found in condition 14 of Section IV – General Permit Conditions. As mentioned above, this landfill has a lot of inert waste and should not have many odor problems.

### Section II.2: Fugitive Particulate Emissions

- Added language to Condition 2.1 that indicates compliance with the fugitive particulate emissions shall be determined based on compliance with the annual waste acceptance rates and fugitive control measures.
- Added Condition 2.2, which requires a weekly check of the facility to determine if the dust control plan is being followed and is effective. This condition also includes the appropriate Regulation No. 1 guidelines for fugitive dust (20% opacity, no off-property transport, and nuisance provisions).
- The fugitive dust control plan was moved to condition 2.3.

### Section III – Permit Shield

- The citation in the permit shield was corrected.

### Section IV - General Conditions

- Added language from the Common Provisions (new condition 3). With this change the reference to “21.d” in Condition 20 (prompt deviation reporting) will be changed to “22.d”, since the general conditions are renumbered with the addition of the Common Provisions.
- Removed the upset and breakdown provisions from Condition 4 (emergency provisions) since they are included in the Common Provisions.
- The citation in General Condition 17 (open burning) was revised. The open burning requirements are no longer in Reg 1 but are in new Reg 9. In addition, changed the reference in the text from “Reg 1” to “Reg 9”.

### Appendices

- Appendix B and C were updated to the current version (9/20/05).